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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/665,090

**Applicant(s)**

KATSUO ET AL.

**Examiner**

EILEEN ADAMS

**Art Unit**

2481

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-61 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-61 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-C100)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

**DETAILED ACTION**  
***RESPONSE TO ARGUMENTS***

1. The rejection to Claim 61 under 35 U.S.C. 101 is withdrawn in light of Applicant's amendment filed on November 1, 2011.
2. Applicant's arguments and amendment filed November 1, 2011 with respect to the rejections of Claims 1-61 have been fully considered and the rejections are withdrawn. However, based upon further consideration a new ground of rejection is entered in view of Cohen et al. (Pub. No.: US 2003-0233379)

**FINAL REJECTION**  
**35 USC § 112 Sixth Paragraph**

3. MPEP 2181 discloses that a claim limitation will be presumed to invoke 35 U.S.C. 112 6<sup>th</sup> paragraph if it meets the following 3-prong analysis:
  - a. the claim limitations must use a non-structural term;
  - b. the non-structural term must be modified by functional language;
  - c. the non-structural term must not be modified by sufficient structure, material, or acts for achieving the specified function
4. **Claims 1-40** disclose limitations which are presumed to invoke 35 U.S.C. 112 6<sup>th</sup> paragraph as said limitations meet said 3-prong analysis.

5. Regarding **Claims 1-40**, **conversion means for converting** considered to read on Fig. 1 unit 12; **file preparation means for preparing** considered to read on Fig. 5 unit 41; **recording means for recording** considered to read on Fig. 1 unit 1; **video header/footer removal means for removing** considered to read on Fig. 15 unit 111; **video data decomposition means for decomposing** considered to read on Fig. 15 unit 112; **audio header/footer removal means for removing** considered to read on Fig. 15 unit 111; **channel multiplexing means for multiplexing** considered to read on Fig. 16 unit 124; **data multiplexing means for multiplexing** considered to read on Fig. 17 unit 132; **video data coupling means for coupling** considered to read on Fig. 6 unit 51; **header/footer addition means for adding** considered to read on Fig. 6 unit 52; **KLV structure decomposition means for decomposing** considered to read on Fig. 7 unit 61; **KLV structuring means for KLV-encoding** considered to read on Fig. 7 unit 64; **transmission means for transmitting** considered to read on Fig. 23 unit 208; **audio data conversion means** considered to read on Fig. 5 unit 43; **audio data separation means for separating** considered to read on Fig. 5 unit 42; **video data extraction means for extracting** is considered to read on Fig. 5 unit 40.

***Claim Objections***

6. **Claims 1, 21, 41, and 61** are objected to for the following informalities:  
said claims recite “wherein the first part includes” and “wherein the second part includes” where it is unclear if “the first part” is “the first part of the body”. For the purpose of this examination, “first part” will be construed to read as “first part of the body” and “second part” will be construed to read as “second part of the body” Appropriate correction is required..

***Claim Rejections - 35 USC § 112 1st Paragraph***

7. **Claims 1, 21, 41, and 61** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Said claimed subject matter recites: **“wherein the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data”** which is not described in the specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-3, 10-23, 30-43 and 50-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson (US 2002/0164149 A1) in view of Cohen et al. (Pub. No.: US 2003-0233379).
9. **As per Claim 1** Wilkinson teaches the invention as substantially claimed. Wilkinson discloses **a conversion apparatus for converting file data including a header, a body, and a footer ([0013]), comprising:**
  - conversion means for converting a respective one file from a first file of a first format, which includes first data and second data placed in a multiplexed state in the body** (Paragraph [0002] - video and audio data, see Abstract),
  - and a file of a second format, which includes the first data or the second data collectively placed in the body into another file one of the two files** (Paragraphs [0015,0080,0142] - SDI or SDTI and MXF conversion),

**wherein the second file of the second format includes all of the first data collectively placed in a first part of the body and includes all the second data collectively placed in a second part of the body the first data that is collectively placed on the first part of the body**

(At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify Wilkinson to select either a first part or second part of a body to collectively place first or second data because Applicant has not disclosed that **first data collectively placed in a first part of the body and includes all the second data collectively placed in a second part of the body the first data that is collectively placed on the first part of the body** provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with other variants of approximate first resolutions because performance of said invention is not tied to a specific or approximate first resolution),

**on the one part of the body of the second file** (Paragraphs [0115, 0125, 0128, 129, 135, 0140]; Figs. 6 and 7 - system, picture and audio items collectively placed in other parts of contents package and further shown in paragraphs [15, 16 and 147] - showing that such content can be reproduced in non-audio modes) **including a plurality of frames of the first data** ("the complete Header metadata data structure occupies an integer number of frames" [0123])

**and wherein the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data** (At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify Wilkinson to select either a first part or second part of a body to collectively place first or second data or to place a first/second data to the exclusion of the second/first data because Applicant has not disclosed that **the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data** provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with other variants of approximate first resolutions because performance of said invention is not tied to a specific or approximate first resolution),

**and wherein the second file of the second format includes a first metadata file** (Fig. 7 - various metadata), **the first metadata file having metadata in file units** (in at least Paragraphs [0061,0062] discloses a metadata file in the non-converted format)

Wilkinson does not disclose but Cohen discloses **a first and second metadata file, the second metadata file having metadata in frame units** (Cohen discloses metadata in frame units as image pieces, in first and second metadata files "The combined image comprises a header



of the combined image, a first metadata of the first image piece a second metadata of the second image piece, a first file data of file data of the first image piece, a second file data of file data of the second image piece and a signature of the combined image" [0033]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include **a first and second metadata file, the second metadata file having metadata in frame units** as taught by Cohen into the system of Wilkinson because of the benefit taught by Cohen to provide a software tool and method in which an image is split into and spans across two or more image pieces having a data structure which fits onto a computer readable medium having an available storage capacity which is smaller than the size of the source image.

Wilkinson discloses **and the second metadata file having metadata of frame units collectively placed in the second metadata file** (Paragraphs [0093,125-127] discloses a second metadata file in the converted format)

10. **As per Claim 2, Wilkinson teaches the conversion apparatus according to claim 1, wherein said conversion means includes first format conversion means for converting a file of the first format into a file of the second format** (Paragraph [0133] - MXF converter).

11. **As per Claim 3, Wilkinson teaches the conversion apparatus according to claim 2, wherein the first and second data are video data and audio data, respectively (Paragraph [0002] - video and audio data, Fig. 7, picture and audio data).**
12. **Regarding Claim 10, Wilkinson teaches the conversion apparatus according to claim 3, wherein the body of a file of the first format has metadata placed therein in a form multiplexed together with the video data and the audio data, and said first format conversion means further includes metadata file preparation means for preparing a metadata file in which the metadata multiplexed in the bodies of a file of the first format are collectively placed (Paragraph [0115, 0129, 0125, 0140]).**
13. **As per Claim 11, Wilkinson teaches the conversion apparatus according to claim 10, wherein said first format conversion means further includes file preparation means for preparing a master file describing a pointer to the metadata file (Paragraph [0115,0129,0125,0140]).**
14. **As per Claim 12, Wilkinson teaches the conversion apparatus according to claim 2, further comprising recording means for recording a file of the second format obtained by said second format conversion means onto a recording medium (Figs. 10-12, 46- file**

transfer/storage).

15. **As per Claim 13, Wilkinson teaches the conversion apparatus according to claim 1, wherein said conversion means includes second format conversion means for converting a file of the second format into a file of the first format (Figs. 10-12, 48, 50, 52 - de-multiplex of MXF through encoder to SDTI).**
16. **Regarding Claim 14, Wilkinson teaches the conversion apparatus according to claim 13, wherein the first and second data are video data and audio data, respectively (Paragraph [0002] - video and audio data, Fig. 7, picture and audio data).**
17. **Regarding Claim 15, Wilkinson teaches the conversion apparatus according to claim 14, wherein a file of the second format includes a video file wherein a header and a footer of a form same as that of a file of the first format is added to the body in which the video data are placed collectively (Paragraph [0115,0129,0125,0140]), and audio files for audio data of a plurality of channels in each of which a header and a footer of a form same as that of a file of the first format is added to the body in which the audio data of the channel are placed collectively (Paragraph [0115,0129,0125,0140]), and said second format conversion means includes:**

**video header/footer removal means for removing the header and the footer from the video file (Paragraph [0129,0135]);**

**video data decomposition means for decomposing the video data of the video file into video data of units to be multiplexed with the audio data (Paragraphs [0139,0140]);**

**audio header/footer removal means for removing the headers and the footers from the audio files (Paragraph [0129,0135]);**

**channel multiplexing means for multiplexing the audio data of the channels of the audio files and outputting resulting channel-multiplexed audio data (Paragraphs [0115,0128,0135]);**

**data multiplexing means for multiplexing the video data obtained by said video data decomposition means and the channel-multiplexed audio data obtained by said channel multiplexing means (See Abstract, Paragraphs [0115,0129,0135,0140]); and**

**header/footer addition means for adding a header and a footer of a file of the first format to a body provided by the data obtained by said data multiplexing means (Paragraphs [0055, 0090, 0091, 0093, 0110, 0135] - addition of header and footer with mapping).**

18. **Regarding Claim 16, Wilkinson teaches the conversion apparatus according to claim 15, wherein the audio data of the audio files in a file of the second format is KLV-encoded audio data (Paragraphs**

[0042,0044,0045,0050+)), and said second format conversion means further includes:

**KLV structure decomposition means for decomposing a KLV structure of the KLV- encoded audio data (Paragraphs [0139,0140]);**

**and KLV structuring means for KLV-encoding the channel-multiplexed audio data into audio data of the KLV structure in a unit to be multiplexed with the video data (Paragraphs 0090,0091,0093,0095,0129,0135) - encoding).**

19. **Regarding Claim 17, Wilkinson teaches the conversion apparatus according to claim 15, wherein the audio data in a file of the second format are data encoded by a second coding method from between first and second coding methods (Figs. 10-12, 36 - SDTI-CP encoder), and said second format conversion means further includes audio data conversion means for converting the audio data of the audio files from audio data encoded by the second coding method into audio data encoded by the first coding method (Figs. 10-12, 42 - MXF creator; Paragraphs [0135, 0137, 0139]).**
20. **Regarding Claim 18, Wilkinson teaches the conversion apparatus according to claim 15, wherein a file of the second format further includes a metadata file in which the metadata are placed collectively, and said data multiplexing means multiplexes not only**

- the video data and the channel-multiplexed audio data but also the metadata** (Paragraph [0115,0129,0125,0140]).
21. **Regarding Claim 19**, Wilkinson teaches **the conversion apparatus according to claim 13, further comprising transmission means for transmitting the file of the first format obtained by said second format conversion means through a transmission medium** (Figs. 10-12, 46 -file transfer).
22. **Regarding Claim 20**, Wilkinson teaches **the conversion apparatus according to claim 1, wherein the first format is the Material Exchange Format (MXF)** (Fig. 1; Paragraphs [0041, 0042, 0053]).
23. **As per Claim 21** Wilkinson teaches **A conversion apparatus for converting file data including a header, a body, and a footer, comprising:**
- a converter for converting a respective one file from a first file of a first format, which includes first data and second data placed in a multiplexed state in the body, and a second file of a second format, which includes the first data or second data collectively placed in the body, into another file of the two files** (See said analysis for Claim 1),
- wherein the second file of the second format includes all of the first data collectively placed in a first part of the body and includes**

**all the second data collectively placed in a second part of the body**

(See said analysis for Claim 1),

**the first data that is collectively placed on the first part of the body of the second file including a plurality of frames of the first data**

(See said analysis for Claim 1),

**and wherein the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data** (See said analysis for Claim 1),

**and wherein the second file of the second format includes a first metadata file, the first metadata file having metadata in file units**

(See said analysis for Claim 1)

Wilkinson does not disclose but Cohen discloses **a first and second metadata file, the second metadata file having metadata in frame units** (See said analysis for Claim 1).

Wilkinson discloses **and the second metadata file having metadata of frame units collectively placed in the second metadata file** (See said analysis for Claim 1)

24. **As per Claims 22 Wilkinson teaches the conversion apparatus according to claim 21, wherein said converter includes a first format**

- converter for converting a file of the first format into a file of the second format** (See said analysis for Claim 2).
25. **As per Claims 23** Wilkinson teaches **the conversion apparatus according to claim 22, wherein the first and second data are video data and audio data, respectively** (See said analysis for Claim 3).
26. **As per Claim 30** Wilkinson teaches **The conversion apparatus according to claim 23, wherein the body of a file of the first format has metadata placed therein in a form multiplexed together with the video data and the audio data, and said first format converter further includes metadata file preparator for preparing a metadata file in which the metadata multiplexed in the bodies of a file of the first format are collectively placed** (See said analysis for Claim 10).
27. **As per Claim 31** Wilkinson teaches **The conversion apparatus according to claim 30, wherein said first format converter further includes file preparator for preparing a master file describing a pointer to the metadata file** (See said analysis for Claim 11).
28. **As per Claim 32** Wilkinson teaches **The conversion apparatus according to claim 22, further comprising a recorder for recording a file of the second format obtained by said second format converter onto a recording medium** (See said analysis for Claim 12).
29. **As per Claim 33** Wilkinson teaches **The conversion apparatus according to claim 21, wherein said converter includes a second**



- format converter for converting a file of the second format into a file of the first format** (See said analysis for Claim 13).
30. **As per Claim 34 Wilkinson teaches The conversion apparatus according to claim 33, wherein the first and second data are video data and audio data, respectively** (See said analysis for Claim 14).
31. **As per Claim 35 Wilkinson teaches The conversion apparatus according to claim 34, wherein a file of the second format includes a video file wherein a header and a footer of a form same as that of a file of the first format is added to the body in which the video data are placed collectively, and audio files for audio data of a plurality of channels in each of which a header and a footer of a form same as that of a file of the first format is added to the body in which the audio data of the channel are placed collectively, and said second format converter includes: a video header/footer remover for removing the header and the footer from the video file; a video data decomposer for decomposing the video data of the video file into video data of units to be multiplexed with the audio data; an audio header/footer remover for removing the headers and the footers from the audio files; a channel multiplexer for multiplexing the audio data of the channels of the audio files and outputting resulting channel-multiplexed audio data; a data multiplexer for multiplexing the video data obtained by said video data decomposer and the channel-multiplexed audio data obtained by said channel**

- multiplexer; and a header/footer adder for adding a header and a footer of a file of the first format to a body provided by the data obtained by said data multiplexer. (See said analysis for Claim 15).**
32. **As per Claim 36 Wilkinson teaches The conversion apparatus according to claim 35, wherein the audio data of the audio files in a file of the second format is KLV-encoded audio data, and said second format converter further includes (See said analysis for Claim 16):**
- a KLV structure decomposer for decomposing a KLV structure of the KLV-encoded audio data (See said analysis for Claim 16);**
- and a KLV structurizer for KLV-encoding the channel-multiplexed audio data into audio data of the KLV structure in a unit to be multiplexed with the video data (See said analysis for Claim 16).**
33. **As per Claim 37 Wilkinson teaches The conversion apparatus according to claim 35, wherein the audio data in a file of the second format are data encoded by a second coding method from between first and second coding methods, and said second format converter further includes an audio data converter for converting the audio data of the audio files from audio data encoded by the second coding method into audio data encoded by the first coding method (See said analysis for Claim 17).**
34. **As per Claim 38 Wilkinson teaches The conversion apparatus according to claim 35, wherein a file of the second format further**

- includes a metadata file in which the metadata are placed collectively, and said data multiplexer multiplexes not only the video data and the channel-multiplexed audio data but also the metadata** (See said analysis for Claim 18) .
35. **As per Claim 39** Wilkinson teaches **the conversion apparatus according to claim 33, further comprising a transmitter for transmitting the file of the first format obtained by said second format converter through a transmission medium** (See said analysis for Claim 19).
36. **As per Claim 40** Wilkinson teaches **the conversion apparatus according to claim 21, wherein the first format is the MXF** (See said analysis for Claim 20).
37. **As per Claim 41** Wilkinson teaches **A conversion method for converting file data including a header, a body, and a footer, comprising the steps of:**
- receiving a respective one file of a first file of a first format wherein first data and second data are placed in a multiplexed state in the body and a second file of a second format wherein the first or the second data are placed collectively in the body** (See said analysis for Claim 1);

**and converting the respective one file of the first file of the first format and the second file of the second format into another file of the two files** (See said analysis for Claim 1),

**wherein the second file of the second format includes all of the first data collectively placed in a first part of the body and includes all the second data collectively placed in a second part of the body** (See said analysis for Claim 1), **the first data that is collectively placed on the first part of the body of the second file including a plurality of frames of the first data** (See said analysis for Claim 1),

**and wherein the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data** (See said analysis for Claim 1),

**and wherein the second file of the second format includes a first metadata file, the first metadata file having metadata in file units** (See said analysis for Claim 1)

Wilkinson does not disclose but Cohen discloses **a first and second metadata file, the second metadata file having metadata in frame units** (See said analysis for Claim 1).

Wilkinson discloses **and the second metadata file having metadata of frame units collectively placed in the second metadata file** (See said analysis for Claim 1)

38. **As per Claim 42 Wilkinson teaches The conversion method according to claim 41, wherein the conversion step includes a first format conversion step of converting a file of the first format into a file of the second format (See said analysis for Claim 2).**
39. **As per Claim 43 Wilkinson teaches The conversion method according to claim 42, wherein the first and second data are video data and audio data, respectively (See said analysis for Claim 3).**
40. **As per Claim 50 Wilkinson teaches The conversion method according to claim 43, wherein the body of a file of the first format has metadata placed therein in a form multiplexed together with the video data and the audio data, and the first format conversion step further includes a metadata file preparation step of preparing a metadata file in which the metadata multiplexed in the bodies of a file of the first format are collectively placed (See said analysis for Claim 10).**
41. **As per Claim 51 Wilkinson teaches The conversion method according to claim 50, wherein the first format conversion step further includes a file preparation step of preparing a master file describing a pointer to the metadata file (See said analysis for Claim 11).**
42. **As per Claim 52 Wilkinson teaches The conversion method according to claim 42, further comprising a recording step of recording a file of the second format obtained by the second format conversion step onto a recording medium (See said analysis for Claim 12).**

43. **As per Claim 53 Wilkinson teaches The conversion method according to claim 41, wherein the conversion step includes a second format conversion step of converting a file of the second format into a file of the first format (See said analysis for Claim 13).**
44. **As per Claim 54 Wilkinson teaches The conversion method according to claim 53, wherein the first and second data are video data and audio data, respectively (See said analysis for Claim 14).**
45. **As per Claim 55 Wilkinson teaches The conversion method according to claim 54, wherein a file of the second format includes a video file wherein a header and a footer of a form same as that of a file of the first format is added to the body in which the video data are placed collectively, and audio files for audio data of a plurality of channels in each of which a header and a footer of a form same as that of a file of the first format is added to the body in which the audio data of the channel are placed collectively, and the second format conversion step includes: a video header/footer removal step of removing the header and the footer from the video file; a video data decomposition step of decomposing the video data of the video file into video data of units to be multiplexed with the audio data; an audio header/footer removal step of removing the headers and the footers from the audio files; a channel multiplexing step of multiplexing the audio data of the channels of the audio files and outputting resulting channel-multiplexed audio data;**

- a data multiplexing step of multiplexing the video data obtained by the video data decomposition step and the channel-multiplexed audio data obtained by the channel multiplexing step; and a header/footer addition step of adding a header and a footer of a file of the first format to a body provided by the data obtained by the data multiplexing step** (See said analysis for Claim 15).
46. **As per Claim 56 Wilkinson teaches the conversion method according to claim 55, wherein the audio data of the audio files in a file of the second format is KLV-encoded audio data, and the second format conversion step further includes:**
- a KLV structure decomposition step of decomposing a KLV structure of the KLV- encoded audio data; and a KLV structuring step of KLV-encoding the channel-multiplexed audio data into audio data of the KLV structure in a unit to be multiplexed with the video data** (See said analysis for Claim 16).
47. **As per Claim 57 Wilkinson teaches the conversion method according to claim 55, wherein the audio data in a file of the second format are data encoded by a second coding method from between first and second coding methods, and the second format conversion step further includes an audio data conversion step of converting the audio data of the audio files from audio data encoded by the second coding method into audio data encoded by the first coding method** (See said analysis for Claim 17).

48. **As per Claim 58 Wilkinson teaches The conversion method according to claim 55, wherein a file of the second format further includes a metadata file in which the metadata are placed collectively, and the data multiplexing step multiplexes not only the video data and the channel-multiplexed audio data but also the metadata (See said analysis for Claim 18).**
49. **As per Claim 59 Wilkinson teaches The conversion method according to claim 53, further comprising a transmission step of transmitting the file of the first format obtained by the second format conversion step through a transmission medium (See said analysis for Claim 19).**
50. **As per Claim 60 Wilkinson teaches the conversion method according to claim 41, wherein the first format is the MXF (See said analysis for Claim 20).**
51. **As per Claim 61 Wilkinson teaches A non-transitory computer-readable recording medium storing an executable program causing a computer to execute a conversion method for converting file data including a header, a body, and a footer, said program comprising (See said analysis for Claim 1):**
- a conversion step of converting a respective one file from a first file of a first format, which includes first data and second data placed in a multiplexed state in the body, and a second file of a second format, which includes the first data or the second data**



**collectively placed in the body, into another file of the two files** (See said analysis for Claim 1),

**wherein the second file of the second format includes all of the first data collectively placed in a first part of the body and includes all the second data collectively placed in a second part of the body** (See said analysis for Claim 1), **the first data that is collectively placed on the first part of the body of the second file including a plurality of frames of the first data** (See said analysis for Claim 1),

**and wherein the first part includes data of a plurality of frames but no second data, and wherein the second part includes data of a plurality of frames by no first data** (See said analysis for Claim 1),

**and wherein the second file of the second format includes a first metadata file, the first metadata file having metadata in file units** (See said analysis for Claim 1)

Wilkinson does not disclose but Cohen discloses **a first and second metadata file, the second metadata file having metadata in frame units** (See said analysis for Claim 1).

Wilkinson discloses **and the second metadata file having metadata of frame units collectively placed in the second metadata file** (See said analysis for Claim 1)

52. **Claims 4-9, 24-29 and 44-49** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson (US 2002/0164149 A1) in view of Cohen et al. (Pub. No.: US 2003-0233379), as applied to **Claims 1-3, 10-23, 30-43 and 50-61**, and further in view of Shirata et al. (US 2001/0043784 A1 ).

53. **Regarding Claim 4**, Wilkinson teaches the invention as substantially claimed. Wilkinson discloses **the conversion apparatus according to claim 3, wherein said first format conversion means includes:**

**video header/footer addition means for adding a header and a footer of a form same as that of a file of the first format to a body provided by the video data coupled by said video data coupling means to prepare a video file of said video data** (Paragraphs [0055,0090,0093,0110] - addition of header and footer with mapping).

Wilkinson and Cohen do not disclose but Shirata discloses **video data extraction means for extracting the video data multiplexed with the audio data in a file of the first format** (Paragraphs [0031,0032,0035]); **video data coupling means for coupling the video data extracted by said video data extraction means** (Paragraphs [0039,0040]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a device that extracts and

separates both audio and video for feasible signal processing of signals for addition or removal of data as well as quality adjustments.

54. **Regarding Claim 5**, Wilkinson teaches **the conversion apparatus according to claim 4, wherein said first format conversion means further includes file preparation means for preparing a master file describing a pointer to the video file** (Paragraphs [0110,0113,0127,0129]).
55. **Regarding Claim 6**, Wilkinson teaches **the conversion apparatus according to claim 3, wherein the audio data in a file of the first format are channel-multiplexed audio data formed from audio data of a plurality of channels multiplexed with each other** (Paragraph [0115,0129,0125,0140]), **and said first format conversion means includes:**
- audio header/footer addition means for adding a header and a footer of a form same as that of a file of the first format to a body provided by the audio data of each of the channels to prepare audio files of the audio data for the individual channels** (Paragraphs [0055,0090,0091,0093,0110,0135] - addition of header and footer with mapping).

Wilkinson and Cohen do not disclose but Shirata discloses **audio data extraction means for extracting the channel-multiplexed audio data multiplexed with the video data in a file of the first file format** (Paragraphs [0031,0032,0035]); **audio data separation means for separating the channel-multiplexed audio data extracted by said audio data extraction means into the audio data of the individual channels** (Paragraphs [0039,0040]).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a device that extracts and separates both audio and video for feasible signal processing of signals for addition or removal of data as well as quality adjustments.

56. **Regarding Claim 7, Wilkinson teaches the conversion apparatus according to claim 6, wherein the channel-multiplexed audio data in a file of the first format are Key, Length, and Value (KLV)-encoded data** (Paragraphs [0042,0044,0045,0050+]), **and said first format conversion means includes:**
- **KLV structure decomposition means for decomposing a KLV structure of the KLV- encoded channel-multiplexed audio data extracted by said audio data extraction means and supplying resulting audio data to said audio data separation means** (Paragraphs [0115,0135,0139,0140]); **and KLV structuring means for KLV-encoding**

**the audio data of the channels obtained by said audio data separation means so as to individually have a KLV structure** (Paragraphs [0066-0068]); **said audio header/footer addition means adding a header and a footer to a body provided by the audio data of each of the channels structured by said KLV structuring means so as to have a KLV structure** (Paragraphs [0090,0091,0093,0095,0129,0135])  
- addition of header and footer with mapping).

57. **Regarding Claim 8**, Wilkinson teaches **the conversion apparatus according to claim 6, wherein the audio data of a file of the first format are data encoded by a first coding method** (Fig. 10, 40 - audio encode), **and said first format conversion means further includes audio data conversion means for converting the audio data of the channels coded by the first coding method** (Fig. 10, 42 - MXF creator; Paragraph [0133]) **and obtained by said audio data separation means into audio data of the channels encoded by a second coding method** (Fig. 10, 36 - SDTI-CP encoder).
58. **Regarding Claim 9**, Wilkinson teaches **the conversion apparatus according to claim 6, wherein said first format conversion means further includes file preparation means for preparing a master file describing pointers to the audio files of the channels** (Fig. 3 - mapping header for audio frames; in at least Paragraphs [0097,0119,0123]).

59. **As per Claim 24** Wilkinson teaches **The conversion apparatus according to claim 23, wherein said first format converter includes** (See rationale and motivation as applied to Claim 4):

Wilkinson and Cohen do not disclose but Shirata discloses **a video data extractor for extracting the video data multiplexed with the audio data in a file of the first format; a video data coupler for coupling the video data extracted by said video data extractor** (See rationale and motivation as applied to Claim 4);

Wilkinson teaches **and a video header/footer adder for adding a header and a footer of a form same as that of a file of the first format to a body provided by the video data coupled by said video data coupler to prepare a video file of said video data** (See rationale and motivation as applied to Claim 4).

60. **As per Claim 25** Wilkinson teaches **The conversion apparatus according to claim 24, wherein said first format converter further includes a file preparator for preparing a master file describing a pointer to the video file** (See rationale and motivation as applied to Claim 5)
61. **As per Claim 26** Wilkinson teaches **The conversion apparatus according to claim 23, wherein the audio data in a file of the first**

**format are channel-multiplexed audio data formed from audio data of a plurality of channels multiplexed with each other, and said first format converter includes** (See rationale and motivation as applied to Claim 6):

Wilkinson and Cohen do not disclose but Shirata discloses **audio data extractor for extracting the channel-multiplexed audio data multiplexed with the video data in a file of the first file format; an audio data separator for separating the channel-multiplexed audio data extracted by said audio data extractor into the audio data of the individual channels; and an audio header/footer adder for adding a header and a footer of a form same as that of a file of the first format to a body provided by the audio data of each of the channels to prepare audio files of the audio data for the individual channels** (See rationale and motivation as applied to Claim 6).

62. **As per Claim 27 Wilkinson teaches The conversion apparatus according to claim 26, wherein the channel-multiplexed audio data in a file of the first format are KLV-encoded data, and said first format converter includes: a KLV structure decomposer for decomposing a KLV structure of the KLV-encoded channel-multiplexed audio data extracted by said audio data extractor and supplying resulting audio data to said audio data separator; and a KLV structurer for KLV-encoding the audio data of the channels**

- obtained by said audio data separator so as to individually have a KLV structure; said audio header/footer adder adding a header and a footer to a body provided by the audio data of each of the channels structured by said KLV structurer so as to have a KLV structure (See rationale and motivation as applied to Claim 7).
63. **As per Claim 28** Wilkinson teaches **The conversion apparatus according to claim 26, wherein the audio data of a file of the first format are data encoded by a first coding method, and said first format converter further includes an audio data converter for converting the audio data of the channels coded by the first coding method and obtained by said audio data separator into audio data of the channels encoded by a second coding method** (See rationale and motivation as applied to Claim 8).
64. **As per Claim 29** Wilkinson teaches **The conversion apparatus according to claim 26, wherein said first format converter further includes file preparator for preparing a master file describing pointers to the audio files of the channels** (See rationale and motivation as applied to Claim 9).
65. **As per Claim 44** Wilkinson teaches **The conversion method according to claim 43, wherein the first format conversion step includes** (See rationale and motivation as applied to Claim 4):
- Wilkinson and Cohen do not disclose but Shirata discloses **a video data extraction step of extracting the video data multiplexed with the**



**audio data in a file of the first format; a video data coupling step of coupling the video data extracted by the video data extraction step**  
(See rationale and motivation as applied to Claim 4);

Wilkinson teaches **and a video header/footer addition step of adding a header and a footer of a form same as that of a file of the first format to a body provided by the video data coupled by the video data coupling step to prepare a video file of said video data**  
(See rationale and motivation as applied to Claim 4).

66. **As per Claim 45 Wilkinson teaches The conversion method according to claim 44, wherein the first format conversion step further includes a file preparation step of preparing a master file describing a pointer to the video file** (See rationale and motivation as applied to Claim 5).
67. **As per Claim 46 Wilkinson teaches The conversion method according to claim 43, wherein the audio data in a file of the first format are channel-multiplexed audio data formed from audio data of a plurality of channels multiplexed with each other, and the first format conversion step includes** (See rationale and motivation as applied to Claim 6):

Wilkinson and Cohen do not disclose but Shirata discloses **an audio data extraction step of extracting the channel-multiplexed audio data multiplexed with the video data in a file of the first file format;**  
**an audio data separation step of separating the channel-multiplexed**

- audio data extracted by the audio data extraction step into the audio data of the individual channels; and an audio header/footer addition step of adding a header and a footer of a form same as that of a file of the first format to a body provided by the audio data of each of the channels to prepare audio files of the audio data for the individual channels** (See rationale and motivation as applied to Claim 6).
68. **As per Claim 47 Wilkinson teaches The conversion method according to claim 46, wherein the channel-multiplexed audio data in a file of the first format are KLV-encoded data, and the first format conversion step includes: a KLV structure decomposition step of decomposing a KLV structure of the KLV- encoded channel-multiplexed audio data extracted by the audio data extraction step and supplying resulting audio data to the audio data separation step; and a KLV structuring step of KLV-encoding the audio data of the channels obtained by the audio data separation step so as to individually have a KLV structure; the audio header/footer addition step adding a header and a footer to a body provided by the audio data of each of the channels structured by the KLV structuring step so as to have a KLV structure** (See rationale and motivation as applied to Claim 7).
69. **As per Claim 48 Wilkinson teaches The conversion method according to claim 46, wherein the audio data of a file of the first format are data encoded by a first coding method, and the first format**

**conversion step further includes an audio data conversion step of converting the audio data of the channels coded by the first coding method and obtained by the audio data separation step into audio data of the channels encoded by a second coding method** (See rationale and motivation as applied to Claim 8).

**As per Claim 49 Wilkinson teaches The conversion method according to claim 46, wherein the first format conversion step further includes a file preparation step of preparing a master file describing pointers to the audio files of the channels** (See rationale and motivation as applied to Claim 9).

### ***Conclusion***

70. Applicant's amendment necessitated a new ground of rejection.

Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the

mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen Adams whose telephone number is (571) 270-3688. The examiner can normally be reached on Mon-Thurs from 7:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4688.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/EILEEN ADAMS/

Art Unit: 2481

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